

We Claim:

1. An apparatus for establishing services that utilize policy-enabled resources in a communications network, comprising:
 - a first policy enforcement point (PEP) for identifying policy-enabled resources that are available and allocating requested policy-enabled resources to services;
 - a first network resource controller (NRC) for requesting from available policy-enabled resources any policy-enabled resources required to establish a particular service; and
 - a first resource policy layer (RPL) for provisioning, to a service being established, the policy-enabled resources allocated to that service.
2. The apparatus as defined in claim 1 wherein the first PEP comprises a plurality of virtual PEPs, each virtual PEP being associated to a respective service.
3. The apparatus as defined in claim 1 wherein the communications network comprises a plurality of domains, each of the first PEP, first NRC, and the first RPL may be associated with any one of the domains.
4. The apparatus as defined in claim 1 wherein the communications network comprises a plurality of domains, the apparatus further comprises a second PEP associated with a different domain than the first PEP.
5. The apparatus as defined in claim 1 wherein the communications network comprises a plurality of domains, the apparatus further comprises a second NRC associated with a different domain than the first PEP.

6. The apparatus as defined in claim 1 wherein the communications network comprises a plurality of domains, the apparatus further comprises a second RPL associated with a different domain than the first PEP.

7. The apparatus as defined in claim 1 wherein each RPL comprises one or more PDPs

8. The apparatus as defined in claim 1 wherein resource capability information descriptors are used for resource discovery and policy provisioning between entities.

9. A method of establishing services that utilize policy-enabled resources in a communications network, comprising:

identifying, at a first policy enforcement point (PEP) policy-enabled resources that are available and allocating requested policy-enabled resources to services;

requesting, from available policy-enabled resources at a first network resource controller (NRC) any policy-enabled resources required to establish a particular service; and

provisioning, to a service being established at a first resource policy layer (RPL), the policy-enabled resources allocated to that service.

10. The method as defined in claim 9 wherein the communications network comprises a plurality of domains, each of the first PEP, first NRC, and the first RPL may be associated with any one of the domains

11. The method as defined in claim 9 wherein virtual PEPs of a main PEP are provisioned to provide resource services.

12. The method as defined in claim 10 wherein the virtual PEPs are provisioned to provide services in a different domain.

13. The method as defined in claim 12 wherein separate PEPs, each from a different domain, are provisioned to the same service by a PDP.
14. The method as defined in claim 13 wherein two separate PEPs, each from a different domain, are provisioned to the same service by a PDP.
15. The method as defined in claim 14 wherein the PDP is in one of the two domains.
16. The method as defined in claim 14 wherein the PDP is in a third domain.